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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,666	01/21/2004	John Robert Lambert	13768.481	3417
47973 7590 09/16/2008 WORKMAN NYDEGGER/MICROSOFT 1000 EAGLE GATE TOWER 60 EAST SOUTH TEMPLE SALT LAKE CITY, UT 84111				
EXAMINER				
BELOUSOV, ANDREY				
ART UNIT		PAPER NUMBER		
2174				
MAIL DATE		DELIVERY MODE		
09/16/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/761,666

Applicant(s)

LAMBERT ET AL.

Examiner

ANDREY BELOUSOV

Art Unit

2174

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 10, 11 and 14-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10-11, 14-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

This action is responsive to the amendment filed on 6/20/2008. Claims 1-5, 10-11, 14-23 are pending and have been considered below.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5, 10, 11 and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Parker et al (5,600,789.)

Claims 1, 21: Parker et al. discloses in a computerized system environment including computer-executable instructions, and a plurality of interfaces for accessing the computer-executable instructions, a method of testing the computer-executable instructions through each of the plurality of interfaces using a single testing program, the method comprising the acts of:

- a. identifying a plurality of interfaces ("GUI-specific instantiations," 5:43-45; Fig. 1: "1-2-3 for OPENLOOK", "1-2-3 for Motif", etc.) that are intended to access an identified application program (Fig. 4: 300);
- b. identifying an application program interface (super class embodied in the test script; 5:63-66) that is common to each of the plurality of interfaces that can

access the application program, such that a function of the application program that can be accessed by each of the plurality of interfaces can be tested (Abstract);

- c. through a test program (Fig. 4: test executive), providing at least one representation of a first value ("T commands embodied in the test script", e.g. "MENU_Pick("File/Open)") and "TF_SetText("\$Filename", "A)", Table 2) to the application program through the common application program interface (8:26-27);
- d. receiving a result from the application program (11:57-12:31);
- e. based on the value of the result from the application program, determining that each of the plurality of interfaces is interoperable with the application program (i.e. validation: 3:63-67; 11:57-12:31.)
- f. identifying one or more other application program interfaces that are common to the identified user interfaces (test script in other scripting languages, e.g. C; 7:16-21); and

However, Parker does not explicitly disclose:

- a. converting the test program (test executive, 7:35-39), by recompiling source code of the test program to function with at least one of the one or more other application program interfaces, such that the test program is configured to access the identified application program through at least one of the one or more other application program interfaces.

The Examiner takes Official Notice that it is old and well known in the computing arts to recompile programs. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to recompile the test program such that it would be configured to access (Fig. 4: 323, 301) the identified application program through at least one of the one or more other application program interfaces. One would have been motivated to recompile the test program based on the suggestion in Parker that the test script and the test executive could be written in portable languages, such as T or C (7:12-45.)

Claim 2: Parker et al. discloses the method as recited in claim 1, wherein the at least one representation of the first value is unique to at least one of the plurality of interfaces (8:26-53.)

Claim 3: Parker et al. discloses the method as recited in claim 2, wherein the at least one representation of the first value is identified automatically prior to providing the at least one representation to the application program (3:63; 8:26-53.)

Claim 5: Parker et al. discloses the method as recited in claim 1, wherein the identified application program is an application program to be tested (Fig. 3; 6:56-7:12.)

Claim 10: Parker et al. discloses the method as recited in claim 1, further comprising receiving one or more results from the application program through the corresponding

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one or more interfaces that are intended to access the application program (11:57-12:31.)

Claim 11: Parker et al. discloses the method as recited in claim 10, further comprising, based on the received one or more results, identifying an expected result by which the received one or more results can be compared (11:57-12:31.)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 14-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cordero et al. (20010044339) in view of Parker.

Claim 14, 22: Cordero et al. discloses, in a computerized system environment including computer-executable instructions, and plurality of interfaces for accessing the computer-executable instructions, a method of testing an application program through each of the plurality of interfaces using a single testing program, the method comprising:

- a. identifying a plurality of interfaces that are intended to access an application program (par. 0059);

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- b. sending a first value (e.g. generic "SENT()", par. 75) to the application program for each of the plurality of identified interfaces, wherein the first value is sent using an application program interface ("low-level, cross-platform, device independent layer of the comm engine" par. 75) that is common to each of the plurality of identified interfaces (par. 0052, 0075);
- c. receiving a plurality of results from the application program, wherein each result in the plurality corresponds to an identified one of the plurality of interfaces (par. 0052, 0055);

However, Cordero et al. does not explicitly disclose:

- d. comparing the plurality of results with each other to identify an expected result.
- Parker discloses a method for an automated GUI interface testing, wherein the plurality of results are compared with each other (28:7-11) to identify an expected result (11:57-12:31.) Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to compare the plurality of results with each other to identify an expected result, as taught by Parker, in the method as disclosed by Cordero. One would have been motivated to identify an expected result by comparing a plurality of results with each other so as to determine the functionality of the application program and to subsequently perform additional testing utilizing the expected result (Parker, 11:65-12:8.)

Claim 15: Cordero et al. and Parker disclose the method as recited in claim 14. Cordero further discloses comprising sending a next value to the application program for each of the plurality of identified interfaces (par. 055.)

Claim 16: Cordero et al. and Parker disclose the method as recited in claim 15. Cordero further discloses, further comprising receiving a next result from the application program that is based in part on the next value that has been sent to the application (par. 055.)

Claim 17: Cordero et al. and Parker disclose the method as recited in claim 16. Cordero further discloses, further identifying that the application is interoperable with at least one of the identified interfaces by comparing the next result with the expected result (par. 0012.)

Claim 18: Cordero et al. and Parker disclose the method as recited in claim 14. Cordero further discloses, further comprising generating a test program that is configured to access the application program through the identified common application program interface (par. 0069.)

Claim 19: Cordero et al. and Parker disclose the method as recited in claim 18. Cordero further discloses, further comprising identifying one or more other application program interfaces that are common to the identified user interfaces (par. 0013, application code, hardware devices, comm. Protocols.)

Claim 20: Cordero et al. and Parker disclose the method as recited in claim 19. Cordero further discloses, further comprising converting the test program such that it is configured to access the identified application program through at least one of the one or more other application program interfaces (par. 0013 - (software developer thus need only code (convert) to the cross-platform core, which is always the same regardless of the hardware platform or operating system))).

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parker in view of Cordero.

Claim 4: Parker et al. discloses the method as recited in claim 1. However, Parker does not explicitly disclose wherein the plurality of interfaces includes at least one telephone user interface. Cordero discloses a similar method for multi-platform testing, wherein the plurality of interfaces includes at least one telephone user interface (par. 009, cellular devices.) Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a telephone user interface. One would have been motivated to combine the teaching of Parker with Cordero so as to enable application testing on varied platform that suitable to run the application (par. 009.)

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parker in view of Bailey (6,981,180.)

Claim 23: Parker et al. discloses the method of claim 1. However, Parker does not explicitly disclose, wherein providing at least one representation of a first value to the application program through the common application program interface comprises:

- a. automatically identifying a plurality of isomorphisms of a value that are specific to one of the interfaces from among the identified plurality of interfaces; and
- b. testing the identified isomorphisms of the value such that different forms of one or more values may be tested.

Bailey discloses a method for testing, wherein providing at least one representation of a first value to the application program through the common application program interface comprises:

- a. automatically identifying a plurality of isomorphisms of a value that are specific to one of the interfaces from among the identified plurality of interfaces; and
- b. testing the identified isomorphisms of the value such that different forms of one or more values may be tested (3:58-4:3.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize isomorphisms in system testing as disclosed by Bailey, in the teachings of Parker. One would have been motivated to utilize isomorphisms in system testing so as to provide varying degrees of validation (3:58-4:3.)

Response to Arguments

7. Applicant's arguments filed 6/30/2008 have been fully considered but they are not persuasive. Applicant argues that Cordero does not appear to teach sending a first value to application program for *each* of the plurality of identified interfaces. The Examiner respectfully disagrees. As admitted on the record by the Applicant, Cordero teaches a common API (cross-platform core) presented for all platforms which has been tested and integrated with a plurality of interfaces. Although, the integration and testing is not provided with fine detail, the Examiner argues that it is an inherent matter to test the cross-platform core by sending a test value to each of the different platforms that is integrated to work with a core.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Belousov whose telephone number is (571) 270-1695. The examiner can normally be reached on Mon-Fri (alternate Fri off) EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3800.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven P Sax/
Primary Examiner, Art Unit 2174

AB
September 13, 2008